



### Africa Debt Monitor Analysis

Three Cs for DMOs: Co-ordination, consistency and clarity

### CONTENTS

| 1. Introduction   | 3  |
|---|----|
| 2. Debt-management office relationships with other government institutions  | 5  |
| 3. The importance of avoiding inconsistent debt-management responsibilities   | 11 |
| 4. A brief note on the relative importance of governance and law  | 13 |
| 5. Conclusion   | 14 |
| References  | 15 |
| Tables  |    |
| Table 1: Frequency of DMO meetings with central banks   | 9  |
| Table 2: Frequency of DMO meetings with budget office   | 9  |
| Table 3: Frequency of DMO meetings with OAG   | 9  |
| Figures   |    |
| Figure 1: Formal relationship between DMO and central bank  | 8  |
| Figure 2: Formal relationship between DMO and budget office   | 8  |
| Figure 3: Formal relationship between DMO and OAG   | 8  |
| Figure 4: Are borrowing responsibilities the same for foreign and domestic debt?                                      | 12 |
| Figure 5: Are borrowing responsibilities the same for domestic- and foreign-currency debt? Impact on debt composition | 12 |
| Figure 6: Is DMO mandate codified in law?   | 13 |

#### 1. INTRODUCTION



#### **OVERVIEW**

The Africa Debt Monitor (ADM), launched in September 2019, provides a unique platform for sharing information on African central government debt and debt management policies, practices and institutional arrangements. It offers multiple tools for cross-country peer-learning on public debt issuance and management and provides policymakers with additional insight into the capacity and capability of their debt offices to manage debt and associated risk.

This report forms part of the ADM Analysis series, a set of reports which look into trends in debt management in Africa using quantitative and qualitative information available on the ADM. The other two reports available in 2019 are 'More debt reporting, more marketable debt' and 'Primary-dealer systems and stock exchanges: Gateways to local market development'. Additional reports will be produced annually as a complement to the annual Africa Debt Monitor data update.

It is frequently stated that effective public debt management depends on the capacity and technical competency of the debt-management office (DMO); the degree to which debt management is unified in a single unit; and the existence of strong laws governing the delegation of debt management responsibilities (see, for example, World Bank 2015; Dodaro 2012; Wheeler 2004). While capacity and technical competency are, of course, crucial for effective and sustainable debt management, using data from the Collaborative Africa Budget Reform Initiative (CABRI) Africa Debt Monitor (ADM), we find that debt composition is not negatively affected when different components of borrowing are handled by different units. We also find that the existence of formal laws delineating debt-management responsibilities is not correlated with a more sustainable composition of debt.

This report, which forms part of the ADM Analysis series, shows that what really matters for improved functional outcomes is both strategic coordination between DMOs and other government institutions, and clear and consistent delegation of debt-management responsibilities. Both of these are currently underemphasised in public financial management (PFM) literature and by PFM practitioners themselves.

Firstly, co-ordination with other parts of the government is crucial for effective and sustainable debt management. For example, effective co-ordination between DMOs and the budget office, ensures that debt considerations form part of budget deliberations, while co-ordinating with the office of the accountant-general (OAG) ensures that cash is available when payments are due, and that idle cash is managed in such a way as to avoid unnecessary borrowing.

Secondly, DMO functionality also depends on whether the DMO itself has consistent and clearly delineated responsibilities. Indeed, it is often argued that including all debt-management operations under a single unit restricts the spread of scarce technical expertise across the finance ministry and diminishes room for dis-coordination (Wheeler 2004; Olden et al 2017). However, we find that this is not necessarily the case. Fragmented units, organised by responsibility for different sources of financing, such as external or domestic and concessional or nonconcessional, do not automatically have negative effects on debt outcomes. Specifically, ADM results suggest that debt composition outcomes are not negatively affected when different components of borrowing are handled by different units. Moreover, formal laws are not as crucial as having clearly delineated responsibilities.

The analysis is organised into two sections. The next section provides a descriptive analysis of co-ordination between DMOs and other institutions across ADM participants. In doing so, it shows there is frequently a lack of institutionalised co-ordination between DMOs and other parts of the government. The patterns reiterate where inter-institutional co-ordination can be improved and points of emphasis that may be assumed as crucial but, at least with this preliminary investigation, do not appear essential to bringing about effectively managed and sustainable debt.

The latter half of the report describes the degree to which DMOs themselves have consistent and clear responsibilities. Interestingly, and contrary to the literature on this topic, the analysis here does not find that any specific organisational structure is optimal. What is revealed is that functionality results from due consideration of a specific country context and its objectives for debt management.

Nor does the report find that clearly delineated responsibilities have to be formalised in law. The benefits of clear and consistent debt management practices can emerge regardless of whether responsibilities are informally or formally arranged. The more crucial issue is simply whether institutional arrangements are clear and consistent.



The benefits of clear and consistent debt management practices can emerge regardless of whether responsibilities are informally or formally arranged

## 2. DEBT-MANAGEMENT OFFICE RELATIONSHIPS WITH OTHER GOVERNMENT INSTITUTIONS



The quality of co-ordination between various parts of the government affects macroeconomic policy design and implementation. Co-ordinated bureaucracies tend to have an easier time achieving policy aims while poorly co-ordinated bureaucracies are inefficient and struggle to uniformly pursue policy aims. Lack of co-ordination creates room for conflicting priorities and, possibly, excessive political interference in macroeconomic management. This is particularly true in the context of public debt as a DMO's relationship with the central bank, budget office and OAG determines its ability to manage debt effectively.

One major concern is the relationship between monetary policy and debt management. This brings the relationship between DMOs and central banks to the fore. Because short-term debt is used as a monetary policy tool to mop up excess liquidity and to finance governments' borrowing requirements, coordination between the DMO and central bank is crucial. Particularly where central banks are independent and manage monetary policy in a relatively autonomous manner (Cukierman, Webb & Neyapti 1992; Fischer 1995), DMO co-ordination with central banks is crucial to achieving the related but distinct aims of stable monetary policy and effective debt management.

The central bank also acts as the government's banker and manages payments via the government's account structure, typically kept at the central bank. In most African countries, the central bank also fulfils the front office or debt issuance functions of the DMO. This reiterates the importance of DMOs co-ordinating with central banks in their daily operations to avoid either contradictory strategies or the prioritisation of monetary policy over the government's own funding obligations (Wheeler 2004).



The central bank also acts as the government's banker and manages payments via the government's account structure

Box 1 notes the example of one ADM participant country, South Africa, where the close relationship and consequent mutual trust between the central bank and DMO have helped to develop the local market.

Another major concern is the relationship between fiscal policy and debt management. The key institutional relationship here is between the DMO and the budget office. A DMO's ability to keep debt at sustainable levels depends in large part on ensuring debt considerations are part of fiscal policy planning and deliberations, which the budget office oversees.

### Box 1: Debt management and monetary policy co-ordination in South Africa – a boon for market development

Until the 1990s, South Africa's central bank, the South African Reserve Bank (SARB), controlled all debt management operations. In the mid-1990s, as part of the post-apartheid restructuring process, the new democratic government set up a DMO in the National Treasury – the Asset and Liability Management (ALM) division – to separate debt management operations from monetary policy. This transfer of debt management responsibilities has proven effective and the SARB and Treasury co-ordinate closely. While the two institutions only meet quarterly, what matters more than meeting frequency is that these meetings are formal and consistent, allowing both the SARB and ALM to operate relatively independently from day to day, but under the guidance of co-ordinated monetary and debt plans.

One benefit of this co-ordination is the ability of the National Treasury to confidently issue inflation-linked bonds, instruments that have aided local market development. Inflation-linked bonds would be risky without significant co-ordination between the SARB and ALM because, if monetary policy were managed by the ALM in an unanticipated manner, the cost of inflation-linked bonds could rapidly increase. Co-ordination builds trust and awareness between central bank monetary policy plans and DMO operations. By extension, co-ordination expands the instruments the ALM can use when issuing debt. Because inflation-linked bonds are appealing to investors, central bank and DMO co-ordination provide the fundamentals on which attractive instruments can be issued and the domestic market can develop.

Source: Asset and Liability Management Division, South African National Treasury



A third concern is the relationship between cash management and debt management, which brings the relationship between OAGs and DMOs into focus. Effective cash management requires government agencies to manage expenditure flows when payments are due, to avoid leaving surplus cash in agency accounts, implying that the government has borrowed unnecessarily. Cash management also requires that government revenue and spending flows do not create uneven liquidity changes. Responsible cash management, thus, requires frequent (monthly, at least) co-ordination between the DMO and the OAG to ensure that flows to and from agencies and to and from central government generally are managed in a way that avoids these possible negative effects of cash management (Wheeler 2004). Box 2 uses the case of Uganda, another ADM participant country, to illustrate the difficulties DMOs can face without significant co-ordination with OAGs or input into cash-management operations.

#### Box 2: Addressing fragmented cash and debt management in Uganda

Cash management and debt management responsibilities have long been poorly co-ordinated in Uganda, which has led to mismanaged cash, with idle cash balances not earning interest and unnecessary borrowing due to cash shortfalls and badly co-ordinated repayments. This has led to delayed payments and accumulation of arrears, higher borrowing costs and difficulty in maintaining creditors' trust. Ultimately, mismanaged cash and subsequent debt problems make it harder for governments to ensure spending needs are met in the event of revenue shortages.

To improve co-ordination, the government of Uganda established a Cash Policy Unit in the Directorate of Debt and Cash Policy. The Cash Policy Unit is mandated to: (i) oversee all government banking accounts; (ii) forecast cash flows; and (iii) implement sound practices in actively managing cash.

Challenges in understanding and accepting the roles assigned to different divisions initially limited the ability of the Cash Policy Unit to fulfil its mandate. Bi-weekly meetings have assisted stakeholders to clearly delineate their roles and set practices according to those roles. For example, these meetings helped clarify that the OAG's role is payment processing while the Cash Policy Unit is responsible for forecasting and planning Uganda's cash operations. Other initial challenges included slow exchange of information and inadequate planning capacity. Monthly forecasting meetings now help address these informational and planning shortcomings. This is particularly important as Uganda's debt levels rise, placing more demands on cash and debt-management operations.

Source: Directorate of Debt and Cash Policy, Ministry of Finance, Planning and Economic Development, Uganda

The CABRI ADM provides material for assessing the status of these relationships across participating governments. DMO relationships with central banks, budget offices and OAGs were scored on the basis of whether the relationships are formal, which means whether or not these inter-institutional relationships are codified in law, involve regularly scheduled meetings between the institutions, participation on the same high-level committees, or some combination of these that reflects regular and predictable inter-institutional co-ordination.<sup>1</sup> In addition, the frequency of these meetings was also scored, ranging from weekly to less frequently, to 'various' or ad hoc meetings that occur only when deemed necessary. The results of ADM participants' responses are shown in Figures 1–3 and Tables 1–3.

Figure 1: Formal relationship between DMO and central bank

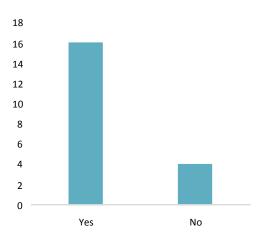


Figure 2: Formal relationship between DMO and budget office

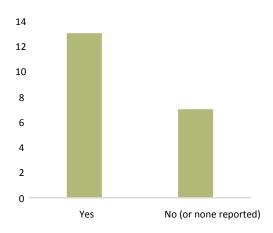
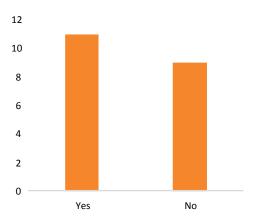


Figure 3: Formal relationship between DMO and OAG



<sup>1</sup> If the country's ADM response simply stated that the DMO and other institutions co-ordinate because they are part of the finance ministry, this was not coded as formal because it did not capture or clarify a precise relationship.

Table 1: Frequency of DMO meetings with central banks

| Weekly       | Monthly  | Bi-monthly | Quarterly                | Various       |
|--------------|----------|------------|--------------------------|---------------|
| Malawi       | Cameroon | Madagascar | Central African Republic | Burkina Faso  |
| Mauritius    | Lesotho  |            | South Africa             | Côte d'Ivoire |
| Sierra Leone | Tunisia  |            | Botswana                 | Kenya         |
| Eswatini     | Uganda   |            |                          | Liberia       |
| Ghana        |          |            |                          | Nigeria       |
|              |          |            |                          | Seychelles    |
|              |          |            |                          | Namibia       |

Table 2: Frequency of DMO meetings with budget office

| Weekly | Monthly      | Bi-monthly | Yearly   | Various       | Never (or none reported) |
|--------|--------------|------------|----------|---------------|--------------------------|
| Malawi | Burkina Faso | Madagascar | Botswana | CAR           | Nigeria                  |
|        | Cameroon     |            |          | Côte d'Ivoire | South Africa             |
|        |              |            |          | Ghana         | Tunisia                  |
|        |              |            |          | Kenya         | Uganda                   |
|        |              |            |          | Lesotho       |                          |
|        |              |            |          | Liberia       |                          |
|        |              |            |          | Mauritius     |                          |
|        |              |            |          | Namibia       |                          |
|        |              |            |          | Seychelles    |                          |
|        |              |            |          | Sierra Leone  |                          |
|        |              |            |          | Eswatini      |                          |

Table 3: Frequency of DMO meetings with OAG

| Weekly       | Monthly  | Quarterly | Various       | None (or none reported) |
|--------------|----------|-----------|---------------|-------------------------|
| Burkina Faso | Cameroon | Eswatini  | Botswana      | CAR                     |
| Lesotho      | Tunisia  |           | Côte d'Ivoire | Madagascar              |
| Malawi       | Uganda   |           | Kenya         | Nigeria                 |
| Mauritius    |          |           | Liberia       | South Africa            |
|              |          |           | Namibia       |                         |
|              |          |           | Seychelles    |                         |
|              |          |           | Sierra Leone  |                         |
|              |          |           | Ghana         |                         |

The results suggest that the degree of co-ordination between DMOs and other institutions varies significantly across ADM participants. Most countries report their DMOs as having formal relationships with central banks, although the frequency of meetings varies, many reporting that they only meet with the central bank as needed or at irregular intervals. Only two-thirds of the respondents report formal DMO-budget office relationships, with significant variation in frequency of meetings. Four country responses suggest that they do not meet with the budget office at all. Similar results are seen in DMO-OAG relationships. Again, two-thirds of respondents do not have a formal DMO-OAG relationship and many report irregular or non-existent meetings between the institutions.

While data limitations inhibit assessing the effects of these relationships, there is good reason to think that relatively informal and infrequent interinstitutional co-ordination limits DMO ability to manage debt sustainably. As noted at the beginning of this section, minimal co-ordination between DMOs and other institutions renders DMO control over debt more difficult: monetary policy may conflict with debt management priorities, debt considerations may not be fully accounted for during budget processes, and management of cash flows may not be comprehensive if debt is not fully accounted for in national accounting practices.

Furthermore, co-ordination is an indicator of quality governance. Co-ordinated and reliable government operations increase trust in government undertakings, which can raise investor confidence in government macroeconomic planning. For example, quality governance has been linked with lower borrowing costs, which means that co-ordination across institutions is probably crucial for sustainable debt management (Kaufmann & Kraay 2002; Mosley 2003; Kaufmann, Kraay & Mastruzzi 2009; Mehrotra, Miyajima & Villar 2012; Kopits 2013). Co-ordinated government operations can also increase accountability among sub-national entities and state-owned enterprises (Tanzi 1995; Ter-Minassian & Craig 1997; CABRI n.d.), which may be more likely to align themselves with central government processes if they are substantially co-ordinated. Poorly co-ordinated debt operations are likely to miss these trust and accountability benefits.

At the very least, the state of DMO co-ordination with other government institutions indicates room for improvement across ADM respondents, particularly in the context of DMO relationships with budget offices and OAGs. This provides material for further analysis, as well as identifying gaps in inter-institutional co-ordination that debt managers may seek to address to increase their DMO's capacity to manage debt effectively.



Co-ordinated and reliable government operations increase trust in government undertakings, which can raise investor confidence in government macroeconomic planning

# 3. THE IMPORTANCE OF AVOIDING INCONSISTENT DEBT-MANAGEMENT RESPONSIBILITIES



In many areas of public administration, the literature assumes that fragmentation of bureaucratic units and, consequently, responsibilities leads to inefficiencies and weak co-ordination. It is often said that fragmented responsibilities in government are problematic and that governments should be concerned with 'achiev[ing] greater efficiencies [and becoming] more effective ... by reducing ... fragmentation in federal programs and activities' (Dodaro 2012: 1).

In debt management, problems associated with fragmentation may arise when 'one entity is responsible for external concessionary borrowing, a second entity for external borrowing on commercial terms, a third entity for domestic borrowing from institutional investors, a fourth entity for borrowing from the domestic retail sector, and so forth' (World Bank 2015: 7). Such fragmented debt management responsibilities may make it more difficult to ensure that borrowing follows national debt strategies and to portray the government to investors as a reliable and consistent debtor.

However, this need not always apply. There will be cases where local context implies that fragmented responsibility is necessary or, indeed, superior to unified responsibility, as in Ghana (see Box 3). What matters here is clarity in the delineation of roles and understanding of why they have been allocated as they have.

The CABRI ADM provides material for assessing the degree of fragmentation in debt management across participating governments. One aspect is whether all domestic and external financing operations are controlled by the same units. Fragmented domestic and foreign debt operations, where different units are responsible for different components of borrowing, may increase the room for impaired co-ordination or even contradictory operations and priorities. Figure 4 shows significant fragmentation in borrowing responsibilities across ADM participants, with 13 countries reporting that domestic and external borrowing are handled by different sets of institutions.

However, counter to the traditional line of thinking that fragmentation may lead to undesirable debt outcomes, ADM results suggest that countries with unified foreign and domestic operational units *do not* necessarily have more favourable debt characteristics. One example of this is given in Figure 5, which shows countries with fragmented foreign and domestic operations actually have more domestic debt than countries with completely unified operations. Furthermore, countries with fragmented domestic and foreign debt operations have more marketable debt than those with unified operations.



ADM results
suggest that
countries
with unified foreign
and domestic
operational units do
not necessarily
have more
favourable debt
characteristics

Although explaining this requires further research, these results suggest that countries with fragmented foreign and domestic debt operations may not face challenges in ensuring domestic resources and market liquidity are the priority. This contrasts with assumptions in the literature and warrants further investigation.

However, it is interesting that of this domestic debt, countries with unified responsibility for foreign and domestic debt operation have nearly 15 per cent more marketable debt than non-marketable. Again, although explaining this would require further research, these results suggest that countries with fragmented foreign and domestic debt operations may face challenges in ensuring that domestic resources and market liquidity are the priority.

Domestic-currency and marketable debt are worthwhile long-run ambitions for debt managers. While foreign-currency debt is crucial for development, particularly until a certain level of demand for the government's domestic-currency debt is reached, domestic-currency debt is important for debt managers as it helps to insulate the country's debt portfolio from excessive exposure to exchange-rate fluctuations and, thus, potential repayment problems. Meanwhile, marketable debt helps build domestic markets, as it both reflects demand for government debt and implies there are more instruments on which domestic markets can grow (CABRI 2019).

#### Box 3: When fragmentation is superior – the case of Ghana

In Ghana, the Debt Management Division manages market-related debt and domestic-currency and foreign-currency debt servicing. The External Resource Mobilisation Division (ERMD) is responsible for negotiating and disbursing all concessional and project loans, co-ordinating aid and aligning donor projects with development and budget priorities. While there is recognition within the Ghanaian Ministry of Finance and Economic Planning that a unified DMO is typically regarded as optimal or best practice, the significant responsibilities placed on the ERMD justify it being a standalone division. This clear rationale and delineation of the roles has meant that there has been little contestation or confusion between these divisions.

Source: Olden et al (2017)

Figure 4: Are borrowing responsibilities the same for foreign and domestic debt?

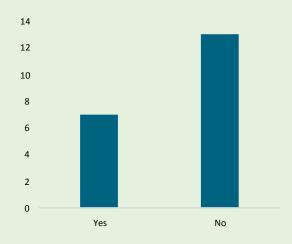
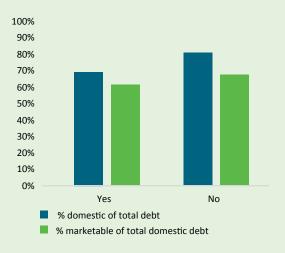


Figure 5: Are borrowing responsibilities the same for domestic- and foreign-currency debt? Impact on debt composition



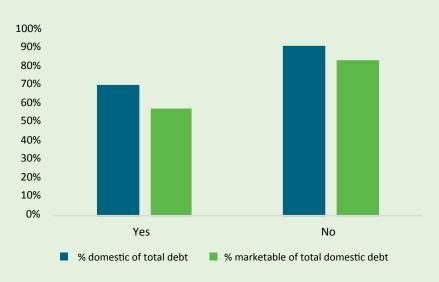
## 4. A BRIEF NOTE ON THE RELATIVE IMPORTANCE OF GOVERNANCE AND LAW



It is interesting to note that the ADM results appear to suggest that the clarity and consistency of debt responsibilities are more important than whether these responsibilities are codified in law. Figure 6 shows that countries which have their DMO's mandate formalised in law do not appear to obtain benefits in debt composition. Indeed, DMOs without formally codified mandates appear to have more domestic debt and more marketable debt than DMOs with formally codified mandates.

This is important to acknowledge because it suggests the benefits of non-fragmented debt management can exist without formal laws. In other words, compared to Section 3 above, this is evidence that formal mandates are less important than consistent processes and clearly defined authority structures, whether formal or informal. Operations in practice are more important than legal frameworks.

Figure 6: Is DMO mandate codified in law?





Operations in practice are more important than legal frameworks



#### 5. CONCLUSION

This report provides insight into institutional arrangements crucial for effective debt management and consequently for fiscal sustainability. The first part of the report describes the state of DMO co-ordination with central banks, budget offices and OAGs across ADM participants. While there is significant co-ordination between DMOs and central banks, there is much less co-ordination with respect to budget offices and OAGs. Furthermore, the frequency of co-ordination varies widely in all three relationships. This descriptive assessment in the first part of this report suggests that ADM participants' DMOs can improve the manner and frequency with which they co-ordinate with these crucial institutions.

The second part of the report illustrates the degree to which DMOs have fragmented responsibility for different types of borrowing. Contrary to traditional thought that fragmentation leads to undesirable debt outcomes, the ADM results included here suggest that unified responsibility for debt management *does not* necessarily improve the sustainability of the debt portfolio.

Similarly, formal laws governing debt-management responsibilities appear less important than whether debt management responsibilities are clear and consistent in practice. In other words, the consistency and clarity of debt management responsibilities can be informal or formal – the key issue is whether there is clarity and consistency.

This report suggests interesting and important paths for future research. On the one hand, the relationships (or lack of them) identified in the first half of the report suggest where co-ordination can be improved. On the other hand, evidence in the second half of the paper suggests that efforts concerned with unifying operations or formalising debt operations in law may not be as essential as is often assumed. Identifying why this is the case and what factors may be more important for ensuring debt is managed sustainably is crucial because, in the end, quality governance has a significant effect on debt outcomes (Tanzi 1995; Ter-Minassian & Craig 1997; Kaufmann & Kraay 2002; Mosley 2003; Kaufmann, Kraay & Mastruzzi 2009; Mehrotra, Miyajima & Villar 2012; Kopits 2013).

#### **REFERENCES**

- CABRI (Collaborative Africa Budget Reform Initiative) (2019) *More reporting, more marketable debt*. Pretoria, South Africa: CABRI.
- CABRI (n.d.) Management of explicit contingent liabilities: Credit guarantees for state-owned entities' debt.

  CABRI Position Paper. Pretoria, South Africa: CABRI. Available at: https://www.cabri-sbo.org/uploads/files/
  Documents/Position-paper-CL\_ENG.pdf [accessed 05.08.19].
- Cukierman A, Webb SB & Neyapti B (1992) Measuring the independence of central banks and its effects on policy outcomes. *The World Bank Economic Review* 6(3): 353–98.
- Dodaro GL (2012) More efficient and effective government: Opportunities to reduce duplication, overlap and fragmentation, achieve savings, and enhance revenue. Testimony Before the Committee on Oversight and Government Reform, House of Representatives GAO-12-449T. Washington DC: Government Accountability Office. Available at: https://www.gao.gov/assets/590/588900.pdf [accessed 05.08.19].
- Fischer S (1995) Central-bank independence revisited. The American Economic Review 85(2): 201-6.
- Kaufmann D & Kraay A (2002) *Growth without governance*. World Bank Policy Research Working Paper 2928. Washington DC: World Bank.
- Kaufmann D, Kraay A & Mastruzzi M (2009) *Governance matters VIII: Aggregate and individual governance indicators*, 1996–2008. Policy Research Working Paper 4978. World Bank. Available at: http://papers.ssrn.com/sol3/Papers.cfm?abstract\_id=1424591 [accessed 05.08.19].
- Kopits G (ed.) (2013) *Restoring public debt sustainability: The role of independent fiscal institutions.* New York: Oxford University Press.
- Mehrotra A, Miyajima K & Villar A (2012) Financial structure and the development of domestic bond markets in emerging economies. BIS Papers 67. Bank of International Settlements.
- Mosley L (2003) *Global capital and national governments. Cambridge Studies in Comparative Politics.*New York: Cambridge University Press.
- Olden B, Khemani P, Singh A, McDonald K & Tang V (2017). *Ghana: Review of the functions of the Ministry of Finance*. Washington DC: International Monetary Fund.
- Tanzi V (1995) Fiscal federalism and decentralization: A review of some efficiency and macroeconomic aspects. Annual World Bank Conference on Development Economics, 295–315.
- Ter-Minassian T & Craig J (1997) Control of subnational government borrowing. In T Ter-Minassian (ed.) *Fiscal federalism in theory and practice*. Washington DC: International Monetary Fund.
- Wheeler G (2004) Sound practice in government debt management. Washington DC: World Bank.
- World Bank (2015) *Debt management performance assessment (DeMPA) methodology*. Washington DC: World Bank.







This report was written by Benjamin Cormier with guidance from the CABRI Secretariat. Special thanks are due to the debt management offices of Botswana, Burkina Faso, Cameroon, CAR, Côte d'Ivoire, Eswatini, Ghana, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritius, Namibia, Nigeria, Seychelles, Sierra Leone, South Africa, Tunisia, Uganda, for completing the ADM survey on which this report is based.

For information on CABRI, or to obtain copies of this publication, please contact: CABRI Secretariat
Cnr John Vorster & Nellmapius Drive,
Centurion, 0062
South Africa
Telephone: +27 (0)12 492 0022
Email: info@cabri-sbo.org
www.cabri-sbo.org

Copy-editing by Laurie Rose-Innes Production by Simon Chislett and Leith Davis

This project was funded by the African Development Bank, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Ministry for Economic Cooperation and Development (BMZ) and the European Union (EU) and the Bill & Melinda Gates Foundation. The findings and conclusions contained within this publication do not necessarily reflect their positions or policies.









